

Cost Benefit Disclosure Statement Note



1. Introduction

Cost Benefit Disclosure Statements describe the anticipated impacts for changes to speed limits. For each proposed speed limit change the Rule requires estimates to be made for impacts to safety, travel time and implementation cost. This note sets out the methodology and underlying assumptions in assessing the costs and benefits and makes a statement for each road proposed for speed limit changes, excluding variable speed limit changes and roads in new developments.

2. Methodology and assumptions

2.1 Cost Impact Analysis Tool

The New Zealand Transport Agency Waka Kotahi (NZTA) “Cost Impact Analysis Tool” has been used to assess the impacts of each proposal. The tool estimates changes in travel time and in the number and severity of crashes by comparing predicted future states under the proposed speed limit and with no change to the speed limit.

The input data for the tool was:

- 4% traffic growth per year based on current trends and expected growth in the district
- Rural roads definition: those with existing speed limits of 80 km/h or higher
- Average Daily Traffic: sourced from RAMM database where there is a range, the higher number is usually used to provide a conservative estimate
- Crash history: over the 5-year period, 2020-2024 extracted from the Crash Analysis System (CAS)
- Mean speeds: assumed using the tool rather than observed
- Heavy vehicle speeds: assumed using the tool rather than observed

2.2 Implementation costs

Implementation costs have been assumed based on \$1,000 per segment which allows for two back-to-back signs to be installed at a standard spacing with contingency for instances where threshold signs may be required.

2.3 Safety outcomes where there is no crash data

NZTA’s “Cost Impact Analysis Tool” has been used to identify the expected reduction in mean operating speed which is in turn used to estimate a potential safety impact.

For roads where there have been no reported crashes in the 5-year period the safety impacts cannot be estimated by considering potential changes to crashes. In these cases, the safety impacts are estimated more generally by acknowledging that crash frequency is expected to decrease with decreases in vehicle speed.

Zone Name	Route/Section name	Urban or Rural	Distance (m)	Annual Average Daily Traffic (AADT)	Expected annual traffic growth (0-7%)	Current posted speed limit (kph)	Proposed new posted speed limit (kph)	Category	Years of crash data (maximum 5)	Fatal crashes during data period	Serious injury crashes during data period	Minor injury crashes during data period	Non-injury crashes during data period	Is crash data from the Crash Analysis System (CAS)?	Implementation cost (\$m)	Increase/Decrease in expected mean vehicle operating speed (kph)	Increase/Decrease in average individual light vehicle trip time (minutes.seconds)	Increase/Decrease in average individual heavy vehicle trip time (minutes.seconds)	Increase/Decrease in average annual aggregate travel time (hours)	Historic average number of fatal crashes per year	Historic average number of serious injury crashes per year	Historic average number of minor injury crashes per year	Historic average number of non-injury crashes per year	Increase/Decrease in expected number of fatal crashes per year	Increase/Decrease in expected number of serious injury crashes per year	Increase/Decrease in expected number of minor injury crashes per year	Increase/Decrease in expected number of non-injury crashes per year	Implementation cost					
QUEENSTOWN CBD 2025	REES STREET	Urban	44	ADT 500-2000	4%	40	10	PERMANENT	5	-	-	1	-	Yes	\$0.001m	-7.5	1.22	1.22	278	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	\$0.001m			
QUEENSTOWN CBD 2025	REES STREET	Urban	78	ADT 4000-10000	4%	40	10	PERMANENT	5	-	-	-	-	1	Yes	\$0.001m	-7.5	2.12	2.12	72	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	-0.2	0.0	\$0.001m		
QUEENSTOWN CBD 2025	THE MALL	Urban	139	ADT < 100	4%	40	10	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-7.5	3.80	3.80	43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m			
RUBY ISLAND ROAD	RUBY ISLAND ROAD	Rural	639	ADT < 100	4%	100	60	PERMANENT	5	-	-	-	-	1	Yes	\$0.001m	-15.8	0.06	0.05	65	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	-0.5	0.0	\$0.001m	
SHOTOVER BUS STOP	SHOTOVER DELTA ROAD BUS STOP	Urban	50	ADT < 100	4%	100	40	PERMANENT	2	-	-	-	-	Yes	\$0.001m	-14.9	0.42	0.36	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m			
TUCKER BEACH 2025	JIMS WAY	Urban	448	ADT < 100	4%	70	50	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-5.0	0.02	0.02	26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		
TUCKER BEACH 2025	TUCKER BEACH ROAD	Urban	2897	ADT 500-2000	4%	70	50	PERMANENT	5	-	-	-	1	Yes	\$0.001m	-5.0	0.15	0.15	3377	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	\$0.001m		
TUKE LANE	TUKE LANE	Urban	180	ADT < 100	4%	40	10	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-7.5	0.05	0.05	56	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		
WILSON BAY RESERVE	GLENORCHY-QUEENSTOWN ROAD	Rural	57	ADT 500-2000	4%	80	60	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-8.0	0.37	0.37	59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		
WILSON BAY RESERVE	GLENORCHY-QUEENSTOWN ROAD	Rural	157	ADT 500-2000	4%	80	60	PERMANENT	5	-	-	-	-	1	Yes	\$0.001m	-8.0	1.02	1.02	163	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	-0.3	0.0	\$0.001m	
WILSON BAY RESERVE	GLENORCHY-QUEENSTOWN ROAD	Rural	425	ADT 500-2000	4%	80	60	PERMANENT	5	-	-	-	-	1	Yes	\$0.001m	-8.0	2.75	2.75	471	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	0.0	\$0.001m
WILSONS BAY - DOC CP	GLENORCHY-QUEENSTOWN ROAD	Rural	240	ADT 500-2000	4%	100	80	PERMANENT	5	-	-	-	-	1	Yes	\$0.001m	-7.8	0.97	0.69	161	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.3	0.0	\$0.001m
WILSONS BAY - DOC CP	GLENORCHY-QUEENSTOWN ROAD	Rural	1485	ADT 500-2000	4%	100	80	PERMANENT	5	-	-	-	-	2	Yes	\$0.001m	-7.8	6.00	4.25	933	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	0.0	\$0.001m
WILSONS BAY - DOC CP	GLENORCHY-QUEENSTOWN ROAD	Rural	967	ADT 500-2000	4%	100	80	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-7.8	3.91	2.77	650	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m	
WINDMILL CORNER	HAWEA BACK ROAD	Rural	51	ADT < 100	4%	100	60	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-15.8	0.46	0.40	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		
WINDMILL CORNER	HAWEA BACK ROAD	Rural	7	ADT < 100	4%	100	60	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-15.8	0.07	0.06	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		
WINDMILL CORNER	HAWEA BACK TRIANGLE ROAD	Rural	53	ADT < 100	4%	100	60	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-15.8	0.48	0.42	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		
WINDMILL CORNER	KANE ROAD	Rural	173	ADT 500-2000	4%	100	60	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-15.8	1.55	1.35	350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		
WINDMILL CORNER	KANE ROAD	Rural	56	ADT 500-2000	4%	100	60	PERMANENT	5	-	-	-	-	1	Yes	\$0.001m	-15.8	0.50	0.44	113	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	-0.5	0.0	\$0.001m	
WINDMILL CORNER	KANE ROAD	Rural	191	ADT 500-2000	4%	100	60	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-15.8	1.71	1.49	386	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		
WINDMILL CORNER	KANE ROAD	Rural	222	ADT 500-2000	4%	100	60	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-15.8	2.00	1.73	450	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		
WINDMILL CORNER	KANE ROAD	Rural	758	ADT 500-2000	4%	100	60	PERMANENT	5	-	-	1	-	Yes	\$0.001m	-15.8	6.80	5.90	1533	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	0.0	\$0.001m		
WINDMILL CORNER	KANE ROAD	Rural	33	ADT 100-500	4%	100	60	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-15.8	0.29	0.25	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		
WINDMILL CORNER	MCCLENNAN ROAD	Rural	104	ADT 100-500	4%	100	60	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-15.8	0.93	0.81	53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		
WINDMILL CORNER	MCCLENNAN TRIANGLE ROAD	Rural	112	ADT < 100	4%	100	60	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-15.8	1.00	0.87	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		
WINDMILL CORNER	ST NINIANS WAY	Urban	38	ADT 100-500	4%	100	60	PERMANENT	5	-	-	-	-	Yes	\$0.001m	-9.9	0.20	0.15	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.001m		